

US ATLAS MUON SPECTROMETER CATHODE STRIP CHAMBER



Anand Kandasamy anand@bnl.gov

A SHORT NOTE ON LOW VOLTAGE POWER IN CSC's

Electronics Power:

Power/chamber : 258.3 Watts Power/endcap (32chambers) : 8265.6 Watts

Power Dissipated in the Cable:

Power supplies located at UX15, 25m away from the wheel.

AWG 4 for 25m run.

AWG 3 for 12m run in the wheel.

AWG18 for 2m run in the faraday cage (pigtails).

Power_cable/endcap : 3936 Watts Voltage Drop/leg* : 1.66 Volts Voltage required at UX15 : 10.32 Volts

Total Power Dissipated by CSC : 12201.6 Watts

Weight of Copper/endcap : 876 lbs.

^{*} These numbers represent calculations based on electronics that were not subjected to radiation. Upon completion of the radiation induced effects tests the numbers will be appropriately re-calculated.